

**M. SC. (APPLIED STATISTICS)
(MSCAST)**

Term-End Examination

June, 2025

MST-024 : DATA ANALYSIS WITH PYTHON

Time : 2 Hours

Maximum Marks : 25

Note : *Question No. 1 is compulsory. Attempt any **two** questions out of the remaining question nos. 2 to 4. Use of scientific calculator (non-programmable) is allowed. Symbols have their usual meanings.*

1. Answer the following :

(a) Write the output of the following

Python code : 1

```
mylist = [1, 2, 3, 4, 5]
```

```
print (mylist [1])
```

- (b) Find and correct the error in the following code : 1

```
import numpy as np  
array = np. array[1, 2, 3]  
print (array)
```

- (c) Create a function by the name '*sort-age*' to sort the age of the students by providing '*name*' and '*age*' of five students as input. 3
2. (a) What are the Python toolkits for GUI ? Also, write their important features. 6
- (b) Explain the way of reading and writing data in Python. 4
3. (a) Describe the '*for*' statement with an example. 3
- (b) What are the built-in functions in Python and how do they differ from the user-defined functions ? Provide examples of each. 7

4. (a) List some popular Python libraries used for Data Analysis. 2
- (b) Define *Pandas* in Python. 2
- (c) Mention a few key applications of the *Panda* library. 3
- (d) What are the different ways in which a data frame can be created in *Pandas* ? 3

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